	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	336982	(postage or indicia or indicium or evidence or evidencing or mark or marking or frank or franking or image or stamp or stamping or impression or inprint or imprint or imprinting or imprinting) near5 (request or requesting or requested or demand or demanded or demanding or obtain or obtained or obtaining)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:48
2	BRS	L2	3623	postage near (meter or metering or server)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:48
3	BRS	L3	25266	(account or accounting) near5 (vault or module or chip or card or psd or ped or psm or memory or nvm or smd)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:48
4	BRS	L4	3198	(2 or 3) near5 (remote or remotely or center or central or centrally or net or network or lan or wan or communicate or communication or internet or intranet)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:51
5	BRS	L5	186	1 same 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:52

	Type	L #	Hits	Search Text	DBs	Time Stamp
6	BRS	L6	371949	(postage or indicia or indicium or evidence or mark or marking or frank or franking or image or stamp or stamping or impression or inprint or imprint or imprinting or imprinting) near5 (generate or generated or generating or generation or build or building or built or construct or constructed or constructing or construction or combine or combined or combining or combination or create or created or creating or creation)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:52
7	BRS	L7	5764	6 near5 (remote or remotely or center or central or centrally)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:53
8	BRS	L8	64	5 and 7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:53
9	BRS	L9	1077	6 near10 (http or html or xml or sgml)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:53
10	BRS	L10	120	9 near5 (print$3 or buil$4 or construct$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 03:54

	Type	L #	Hits	Search Text	DBs	Time Stamp
11	BRS	L11	184	8 or 10	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2005/02/07 04:01

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L11 results

	Document ID	Issue Date	Inventor	Current OR	Current XRef	Pages
1	WO 9857303 A	20040518	GRAVELL, L V et al.			14
2	US 6619544 B2	20030916	Bator; Felix et al.	235/381	235/495; 705/403; 705/59; 705/60	13
3	US 6594374 B1	20030715	Beckstrom; David W. et al.	382/101	382/175	12
4	US 6141654 A	20001031	Heiden; Richard W. et al.	705/408	235/375; 705/401; 705/410	11
5	US 6081795 A	20000627	Ryan, Jr.; Frederick W.	705/408	713/176	14
6	US 6005945 A	19991221	Whitehouse; Harry T.	380/51		25
7	US 5822739 A	19981013	Kara; Salim G.	705/410	235/375; 235/381; 705/401	15
8	US 20030078893 A1	20030424	SHAH, CHANDRAKANT et al.	705/60		15

US-PAT-NO: 5822739
DOCUMENT-IDENTIFIER: US 5822739 A
TITLE: System and method for remote postage metering
DATE-ISSUED: October 13, 1998
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kara; Salim G.	Houston	TX	N/A	N/A

US-CL-CURRENT: 705/410, 235/375 , 235/381 , 705/401

ABSTRACT: A system and method for remote postage metering of postage indicia, including demanding a desired postage amount and subsequently printing the postage indicia onto a piece of mail. A user inputs certain necessary information, as well as additional desired information, into a local processor-based system. The local system then assembles a postage demand in suitable format and transmits the same to a remote postage metering device. The remote postage metering device then verifies the demand for authority to demand and valid funding. Upon verification, the remote postage meter assembles a data packet representing an authorized postage indicia. The data packet is transmitted to the local system for printing. Printing of the postage indicia may be unaccompanied, or may include additional information. Such additional information may include destination and return address, machine readable routing or identification information, or a complete document to be posted.
63 Claims,   3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

---------- KWIC ---------

Abstract Text - ABTX (1): A system and method for remote postage metering of postage indicia, including demanding a desired postage amount and subsequently printing the postage indicia onto a piece of mail. A user inputs certain necessary information, as well as additional desired information, into a local processor-based system. The local system then assembles a postage demand in suitable format and transmits the same to a remote postage metering device. The remote postage metering device then verifies the demand for authority to demand and valid funding. Upon verification, the remote postage meter assembles a data packet representing an authorized postage indicia. The data packet is transmitted to the local system for printing. Printing of the postage indicia may be unaccompanied, or may include additional information. Such additional information may include destination and return address, machine readable routing or identification information, or a complete document to be posted.

Brief Summary Text - BSTX (4): This invention relates, in general, to a system and method, under the control of general purpose computers, for transmitting an amount of authorized postage to a demanding processor-based system, and the subsequent imprinting of that transmitted postage on an item of mail. More specifically, the invention relates to a postage metering system that allows coupling a plurality of

remotely located processor-based systems to a centralized metering device, by means of a publicly accessible gateway, whereby non-fungible postage is communicated from the metering device to specific ones of the plurality of remotely located processor-based systems.

Brief Summary Text - BSTX (21): Technical advantages are realized by the communication of postal information associated with the demand for postage. In addition to the above mentioned advantage of lower postage costs by the inclusion of a communicated zip code as POSTNET bar coding accompanying the indicia, addressee information communicated to the remote metering device may advantageously be verified or corrected at the metering device. By transmitting the destination address of the postal item for which the indicia is to be generated, the remote metering device may verify or change the address to a format suitable for use by the issuing authority prior to its application on a postal item. Furthermore, omitted or erroneous information, such as zip code information, could be supplied or verified.

Brief Summary Text - BSTX (22): These and other needs and advantages are met in a preferred embodiment of the present invention in which a first processor-based system (PC) is located within a business' office or an individual's home. The first PC stores a program, hereinafter referred to as the "Demand" program, accepts information from a user, a coupled device, or the context in which the postal item is being created or sent regarding the amount of desired postage and the mail piece for which it is needed. The demand program subsequently makes a demand for postage to a remote postage meter. The remote postage meter, itself a second processor-based system in the form of a PC, is located at a postage provider's office or other central source. The second PC stores a program, hereinafter referred to as the "Meter" program, which verifies postage demands and electronically transmits the desired postage indicia to the first PC in the form of a data packet. For security purposes, the data packet may be encrypted, or may include information allowing its use only by a selected Demand program, such as the Demand program actually demanding the postage. Subsequently, the Demand program receives the data packet and prints postage indicia, designating the appropriate amount of postage on a printer or special purpose label-maker coupled to the first PC. The postage indicia may contain encrypted information, such as transaction identification, the sender's and/or recipient's address or the Meter and/or Demand program serial number, to be utilized by the postal service for security or other purposes. The Demand program interfaces with the user through the display screen and an input device, such as a keyboard, or mouse. The data packet could contain the indicia for printing with a specific Demand program or it may contain data which allows the Demand program to generate its own indicia.

Detailed Description Text - DETX (5): The Demand program demands the postage from a remote postage metering device physically located away from the first PC. In the preferred embodiment the remote postage meter is itself a second PC, typically located at a postage provider's office. The remote postage meter stores a program, hereinafter referred to as the "Meter" program, which verifies postage demands and

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enables the Demand program to print the desired postage indicia by the transmission of a data packet.

Detailed Description Text - DETX (13): At step 203 the Demand program accepts the postal item sender's return address. As indicated in step 203, the return address may be communicated to the Demand program automatically if the Demand program is coupled with another process, such as a word processing program. Furthermore, the return address information may be utilized by the Demand program to later print the return address along with the postage indicia on a postal item. If determined to be advantageous, such as, for example, if required by a postal authority, the return address information may also be transmitted to the remote postage metering system for inclusion in a generated data packet or for validation of the postage demand. The return address information can also be encoded within a generated postage indicia in such a way as to be machine readable and thus suitable for utilization in preventing postal fraud.

Detailed Description Text - DETX (15): At step 204 the Demand program accepts the postal item destination address. As indicated in step 204, the address may be communicated to the Demand program automatically if the Demand program is coupled to another process such as a word processing program. The address information may be utilized by the Demand program to later print the destination address along with the postage indicia on a postal item. Moreover, the destination address information may also be transmitted to the remote postage metering device for inclusion in a generated data packet or for validation of the correct address. Of course, address acceptance step 204 may be eliminated if desired.

Detailed Description Text - DETX (21): Preferably, the weight information, or information used in its determination, is utilized by the Demand program in the automatic calculation of the necessary amount of postage for the postal item. However, this information may instead be transmitted to the remote postage metering device for inclusion in a generated data packet or for calculation of the necessary amount of postage.

Detailed Description Text - DETX (22): At step 207, the Demand program accepts the postal item's postal class. The class information is utilized by the Demand program in the automatic calculation of the necessary amount of postage for the postal item. Optionally, the postal class information is transmitted to the remote postage metering device for inclusion in a generated data packet.

Detailed Description Text - DETX (23): At step 208, the Demand program accepts the postal item's postal zone. The zone information is utilized by the Demand program in the automatic calculation of the necessary amount of postage for the postal item. Optionally, the postal class information is transmitted to the remote postage metering device for inclusion in a generated data packet.

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Detailed Description Text - DETX (41): Furthermore, including a unique transaction number within the printed postage indicia aids in the detection of postage fraud. This unique transaction is machine readable, and upon two occurrences of the same transaction number, postage fraud is indicated. Moreover, a transaction number may be generated so as to indicate the remote postage metering device that originally distributed the postage credit. With this information, determination of the demanding PC is a simple process of reviewing transaction logs at the remote metering device.

Claims Text - CLTX (108): 49. A postage metering apparatus for distributing predetermined amounts of postage indicia to select ones of a plurality of processor-based systems in temporary data communication with said postage metering apparatus in response to purchase demands by select ones of the plurality of processor-based systems, said postage metering apparatus comprising:

US-PAT-NO: 6005945
DOCUMENT-IDENTIFIER:　　　　US 6005945 A
TITLE:　　　System and method for dispensing postage based on telephonic or web milli-transactions
DATE-ISSUED:　　　December 21, 1999
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE
Whitehouse; Harry T.	Portola Valley	CA	N/A

US-CL-CURRENT: 380/51

ABSTRACT: A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites. A secure central computer includes a database of information concerning user accounts of users authorized to request postal indicia from the secure central computer. A request validation procedure authenticates received postage requests with respect to the user account information in the database. A postal indicia creation procedure, applies a secret encryption key to information in each authenticated postage request so as to generate a digital signature and combines the information in each authenticated postage request with the corresponding generated digital signature so as to generate a digital postage indicium in accordance with a predefined postage indicium data format. A communication procedure securely transmits the generated digital postage indicium to the requesting end user computer. Each end user computer typically includes a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium.

12 Claims,　9 Drawing figures
Exemplary Claim Number:　1
Number of Drawing Sheets:　8

---------- KWIC ---------

Abstract Text - ABTX (1): A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites. A secure central computer includes a database of information concerning user accounts of users authorized to request postal indicia from the secure central computer. A request validation procedure

authenticates received postage requests with respect to the user account information in the database. A postal indicia creation procedure, applies a secret encryption key to information in each authenticated postage request so as to generate a digital signature and combines the information in each authenticated postage request with the corresponding generated digital signature so as to generate a digital postage indicium in accordance with a predefined postage indicium data format. A communication procedure securely transmits the generated digital postage indicium to the requesting end user computer. Each end user computer typically includes a communication procedure for sending postage requests to a secure central computer at which a user account has been established, and for receiving a corresponding digital postage indicium. A postage indicium printing procedure prints a postage indicium in accordance with the received digital postage indicium.

Brief Summary Text - BSTX (65): A system for electronic distribution of postage includes at least one secure central computer for generating postal indicia in response to postage requests submitted by end user computers, and at least one postal authority computer system for processing the postal indicia on mail pieces. A key aspect of the system is that all secure processing required for generating postal indicia is performed at secure central computers, not at end user computers, thereby removing the need for specialized secure computational equipment at end user sites.

Detailed Description Text - DETX (20): a transaction database 174 for storing records concerning each postage indicium generated by the secure central computer 102 and each postage credit transaction in which funds are added to a user account.

Detailed Description Text - DETX (22): Note that only mail handling software resides in each end user's computer 104. No secure hardware is used at the local site, no USPS ZIP+4 CD-ROM is required locally, and no communications port is consumed for a PSD. The secure computer 102 at a central site contains all of the customer account information, current balances, a transaction log for each customer, details on each mail piece indicia dispensed, and encryption software and keys. Furthermore, the encryption procedures 122 required for end user computers are relatively modest, because the encryption of client/server messages is used only to protect the privacy of those communications and are not used to protect the generation of postal indicia. This is an important distinction. The secure central computer 102 generates postal indicia using secure mechanisms and transmits the resulting postal bit pattern to the end user's computer for printing on a mailing label or envelope. The encryption of client/server communications helps to prevent casual theft of postal indicia and eavesdropping on the postal indicia requests being made, but nothing more.

Detailed Description Text - DETX (82): In one preferred embodiment, the data included in each postage indicium generated by the central secure computer is as follows:

Detailed Description Text - DETX (126): One extremely obviously advantage of this invention is that the private keys are always kept at the secure central computer--they

are not spread around in PSD's at millions of distinct locations. Also, since postage indicia are created only at secure central computers, attackers are denied access to the physical entity that signs the postage indicia. But there are other potential advantages to this invention.

Detailed Description Text - DETX (141): In a preferred embodiment, the postal authority computer 180 generates N public-private key pairs for each new time period. The N key pairs are the only key pairs to be used for postal indicia during a certain time period. For instance, a new set of N key pairs might be generated for each week, or each day. The postal authority computer 180 then distributes the N "public" keys to the secure central computers as an indexed set of N keys. In other words, each key will have an associated index value. For instance, if 100 key pairs are generated for each week, and a four digit index value is assigned to each key pair, index values can be assigned to each week's set of key pairs so that none of the index values for the current week's key pairs overlap with the index values for the key pairs of the previous couple of weeks. Different sets of N keys may be distributed to each of the secure central computers 102 so as to help isolate any security breaches. Since the only parties to ever have access to the postal indicia creation keys are the postal authority and the secure central computers, there is no need to use a large number of key pairs for postal indicia creation. In fact, especially if the postal indicia creation key pairs are updated frequently, such as every day or every week, it would probably be sufficient for each secure central computer to be assigned a single distinct postal indicia creation key for each such time period.

Detailed Description Text - DETX (147): a set of encryption keys 264, including keys used by the secure central computers 102 for generating the digital signatures in postal indicia, the keys for verifying postal indicia, and keys for secure communications with the secure central computers 102;

Detailed Description Text - DETX (148): an encryption key generation and distribution procedure 266 for generating new encryption key pairs for generating and validating postal indicia, and for securely transmitting the generated encryption keys to the secure central computers 102;

Detailed Description Text - DETX (163): If steps 300, 302, 304 and 306 are all passed, this indicates only that postal indicium was in fact generated by a secure central computer for a mail piece of the same approximate weight as the mail piece being processed and that was to be mailed from the geographic region services by the postal authority computer system 180. Validation step 310 is used to detect fraud by duplication of otherwise valid postal indicium. In particular, the serial number in the postal indicia is validated at step 310 by checking the meter information database 270 to ensure that the same serial number for the meter associated with the postal indicia has not been previously used, and is within the range of "expected" serial numbers associated with the meter. If the serial number in the postal indicia is outside the range of expected serial numbers, this indicates either a problem with the meter, unexpectedly high meter usage, or a much more serious security breach in which someone has

managed to generate counterfeit postal indicia that have otherwise valid digital signatures.

Detailed Description Text - DETX (177): 6. Integral Address Validation: A requirement for the USPS IBIP is that all addresses must be matched and verified against a national database to ensure that the mail piece will be deliverable. The present invention integrates this address verification with rate computation and indicium generation--all at the secure central computer site.

Detailed Description Text - DETX (193): For instance, a firm the size of American Telephone and Telegraphic might consider a $200,000 investment in their own corporate secure postal computer to be very reasonable. Their users would be able to rely upon the relative stability of the internal corporate network for postage access, destination addresses would never be transmitted outside of the corporate IntraNet during indicium request, all "local" postage meters throughout the entire company could be eliminated, and individual and/or departmental billing records for mail costs could be maintained and tracked by the company in a central site.

Claims Text - CLTX (12): at least one secure central computer for generating postage indicia in response to postage requests submitted by end user computers, the secure central computer including:

US-PAT-NO: 6081795
DOCUMENT-IDENTIFIER: US 6081795 A
TITLE: Postage metering system and method for a closed system network
DATE-ISSUED: June 27, 2000
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ryan, Jr.; Frederick W.	Oxford	CT	N/A	N/A

US-CL-CURRENT: 705/408, 713/176

ABSTRACT: A postage metering system includes a plurality of meter printers
operatively connected as part of a metering network and operating as client meter
printers on the meter printer network. At least one postal security device (PSD) is
coupled to at least one of the client meter printers (local client meter printer). The PSD
includes unique identification the ability to store postal value and generate digital
signatures. The client meter printers function as a <u>postage metering network</u> wherein a
client meter printer other than the local client meter printer (remote client meter printer)
<u>requests evidence</u> of postage payment from the PSD for concluding a postage metering
transaction. The local client meter printer functions as a meter server and the remote
client meter printer functions as a meter client on the <u>postage metering network</u>. The
<u>remote client meter printer initiates a postage metering transaction in the PSD by</u>
<u>sending a request for evidence</u> of postage payment to the local client meter printer. The
local client meter printer sends the <u>request for the evidence</u> of postage payment to the
PSD, receives transaction information from the PSD and sends the evidence of payment
to the remote client meter printer for subsequent printing.
29 Claims,   6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 6

---------- KWIC ---------

Abstract Text - ABTX (1): A postage metering system includes a plurality of meter
printers operatively connected as part of a metering network and operating as client
meter printers on the meter printer network. At least one postal security device (PSD)
is coupled to at least one of the client meter printers (local client meter printer). The
PSD includes unique identification the ability to store postal value and generate digital
signatures. The client meter printers function as a <u>postage metering network</u> wherein a
client meter printer other than the local client meter printer (remote client meter printer)
<u>requests evidence</u> of postage payment from the PSD for concluding a postage metering
transaction. The local client meter printer functions as a meter server and the remote
client meter printer functions as a meter client on the <u>postage metering network</u>. The
<u>remote client meter printer initiates a postage metering transaction in the PSD by</u>
<u>sending a request for evidence</u> of postage payment to the local client meter printer. The
local client meter printer sends the <u>request for the evidence</u> of postage payment to the
PSD, receives transaction information from the PSD and sends the evidence of payment
to the remote client meter printer for subsequent printing.

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Brief Summary Text - BSTX (14): The present invention provides a postage metering system that includes a plurality of meter printer modules (also referred to herein as meter modules and meter printers) operatively connected as part of a metering network and operating as client meter printers on the metering network. At least one postal security device (PSD) is coupled to at least one of the client meter printers (local client meter printer). The PSD includes unique identification and the ability to store postal value and generate digital signatures. The client meter printers function as a postage metering network wherein a client meter printer other than the local client meter printer (remote client meter printer) requests evidence of postage payment from the PSD for concluding a postage metering transaction. The local client meter printer functions as a meter server and the remote client meter printer functions as a meter client on the postage metering network. The remote client meter printer initiates a postage metering transaction in the PSD by sending a request for evidence of postage payment to the local client meter printer. The local client meter printer sends the request for the evidence of postage payment to the PSD, receives transaction information from the PSD and sends the evidence of payment to the remote client meter printer for subsequent printing.

Claims Text - CLTX (4): means in said client meter printers for functioning as a postage metering network wherein a client meter printer other than the local client meter printer (remote client meter printer) requests evidence af postage payment from the PSD for concluding a postage metering transaction.

Claims Text - CLTX (6): 3. The system of claim 2 wherein the remote client meter printer initiates a postage metering transaction in the PSD by sending a request for evidence of postage payment to the local client meter printer, said local client meter printer sends the request for the evidence of postage payment to the PSD, and wherein said local client meter printer receives transaction information.

Claims Text - CLTX (18): means in the remote client meter printer for initiating a postage metering transaction including means for sending a request for evidence of postage payment to the local client meter printer;

Claims Text - CLTX (22): means in said remote client meter printer for generating an indicium, including the postage amount and the digital signature, for the postage metering transaction.

Claims Text - CLTX (42): means in said remote client meter printer for generating an indicium, including the transaction evidence and the digital signature, for the transaction.

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US-PAT-NO: 6141654
DOCUMENT-IDENTIFIER: US 6141654 A
TITLE: Postage printing system having subsidized printing of third party messages
DATE-ISSUED: October 31, 2000
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Heiden; Richard W.	Huntington	CT	N/A	N/A
Kaye; Steven M.	Weston	CT	N/A	N/A
Pierce; Jeffrey D.	Norwalk	CT	N/A	N/A
Ryan, Jr.; Frederick W.	Oxford	CT	N/A	N/A

US-CL-CURRENT: 705/408, 235/375 , 705/401 , 705/410

ABSTRACT: A postage printing system, comprising a computer, a data center and a control system. The computer is in operative communication with a printer for printing a postal indicia on an envelope. The data center is in operative communication with the computer which in turn is located remotely from the data center. The data center includes a plurality of user accounts and a plurality of advertiser accounts where each of the plurality of advertiser accounts includes respective ad data including message data and restriction data. The control system is in operative communication with the data center and the computer and is for: (i) establishing a transaction session between a user of the computer corresponding to one of the plurality of user accounts and the data center; (ii) obtaining recipient address information from the user; and (iii) using the recipient address information and the restriction data from the plurality of advertiser accounts to identify message data available for printing on the envelope in conjunction with the postal indicia.

23 Claims,   5 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

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Detailed Description Text - DETX (2): Referring to FIG. 1, an example of a postage printing system 10 indicative of one example of a virtual postage metering environment in which the present invention may be incorporated is shown. Generally, the postage printing system 10 includes a data center 200 in communication over any suitable communication network 110 (LAN, WAN, telephone line, internet, etc.) with a plurality of remotely located computers (personal computer, workstation, laptop computer or the like) 150. Generally, it is anticipated that the computers 150 would be located in small business offices and/or in private residences and used for a variety of purposes including obtaining postage. The data center 200 is maintained and operated by an authorized postage meter manufacturer or some other authorized agency. The computers 150 may be connected directly to a printer 120 or have access to a printer 130 over the suitable communication network 110. Those skilled in the art will recognize that not each computer 150 need utilize the same network 110 in contacting the data center 200. Likewise, the computer 150 may use one type of network 110 with

the data center 200 and a different type of network with the printer 130. The remotely located computers 150 are representative of users wanting to obtain postage for their mailpieces (envelopes, post cards, packages and the like).

Detailed Description Text - DETX (6): The postage evidencing system 208 accurately records, tracks and accounts for the postal funds that are dispensed to the remote computer 150. In the preferred environment, the postage evidencing system 208 includes one or postage meters or postal security devices (PSD). That is, the data center 200 may buy postage in advance from postal authority and store it in the postage meter in conventional fashion. Thus, the data center 200 may establish one postage meter per account or multiple accounts per postage meter. In either event, the postage meter manufacturer takes care of obtaining, recharging and inspecting the postage meter as required by the postal authority. On the other hand, the postage evidencing system 208 may not include a postage meter. As a trusted third party to the postal authority, the postage meter manufacturer may merely be allowed to forward a payment to the postal authority on a regular basis indicative of the amount of postage dispensed. In yet another alternative, the postal authority may operate the data center 200 itself.

Detailed Description Text - DETX (11): Again referring primarily to FIG. 4 while referencing the structure of FIGS. 1, 2, 3 and 5, once the available messages are determined according to the restriction data described above, at 610, the relevant messages and their corresponding subsidy rate 207b are presented to the user on the remote computer 150 via the user interface. This provides the user with the opportunity to view and analysis the available messages along with their corresponding subsidy rate 207b. Next, at 612, the user selects a message for printing on the envelope 20 in conjunction with the postal indicia 30. For the sake of clarity and brevity, it will be assumed that only one (1) message 70 is selected for printing in ad space zone 60a. However, those skilled in the art will recognize that, as described above, multiple messages may be printed. Next, at 614, the data center 200 generates a print data packet to be downloaded to the remote computer 150 for use in printing the postal indicia 30 and the selected message 70. Preferably, the print data packet contains only information corresponding to the variable data portion of the postal indicia 30. In this embodiment, the remote computer 150 assembles the variable data with the fixed data which has been previously stored on the remote computer 150 to create a complete postal indicia 30. The print data packet also contains graphic information necessary to print the selected message 70. Once the data packet has been received, the user can feed the envelope 20 through the printer 130 to effect printing. Next, at 616, the data center 200 updates the user account to reflect the transaction information, such as: the date, the postage amount dispensed, the hygiened address 50, the selected message 70, the corresponding subsidy, any fees associated with providing the above described services and any other relevant data. Similarly, the data center 200 updates the selected third party advertiser's account to reflect the transaction information, such as: the date, the selected message 70, the corresponding advertising fee, any additional fees associated with providing the above described services and any other relevant data. At a later time, the data center 200 exercises the preferred payment vehicle for the user and the selected third party advertiser, respectively.

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PGPUB-DOCUMENT-NUMBER: 20030078893
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030078893 A1
TITLE: METHOD AND APPARATUS FOR REMOTELY PRINTING POSTAGE INDICIA
PUBLICATION-DATE: April 24, 2003
INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
SHAH, CHANDRAKANT	STOCKTON	CA	US
LEON, JP	SAN CARLOS	CA	US
COOLIDGE, DAVID A.	BERKELEY	CA	US

US-CL-CURRENT: 705/60

ABSTRACT: A postage metering system that includes a central processing system and a remote postage printing device (RPPD). The central processing system includes a secure metering device (SMD) operatively coupled to a central computer and configured to store accounting information. The RPPD operatively couples to the SMD via a wireless communications link. The RPPD receives a user request for postage, transmits the user request to the SMD via the wireless communications link, receives a secure postage indicium from the SMD, and directs printing of an indicium. The secure postage indicium can be generated using digital signature, encryption, or encoding, or a combination thereof.

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Abstract Paragraph - ABTX (1): A postage metering system that includes a central processing system and a remote postage printing device (RPPD). The central processing system includes a secure metering device (SMD) operatively coupled to a central computer and configured to store accounting information. The RPPD operatively couples to the SMD via a wireless communications link. The RPPD receives a user request for postage, transmits the user request to the SMD via the wireless communications link, receives a secure postage indicium from the SMD, and directs printing of an indicium. The secure postage indicium can be generated using digital signature, encryption, or encoding, or a combination thereof.

Summary of Invention Paragraph - BSTX (8): [0023] The invention provides a postage metering system that includes a number of remote postage printing devices (RPPDs) coupled to a central processing system via a wireless communications link. The central processing system includes a secure metering device (SMD) that stores accounting information and provides secure processing. The RPPDs are located at user sites and communicate with the central processing system (or more specifically, the SMD) via the wireless link. The RPPD receives user request to print postage and, when authorized, directs printing of postage indicium. The SMD receives and processes the user request, and authorizes the indicium printing. The RPPD can be designed as a simple, low-cost, portable unit. The SMD provides centralized and secure storage of accounting information.

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Summary of Invention Paragraph - BSTX (9): [0024] An embodiment of the invention provides a postage metering system that includes a central processing system and a remote postage printing device (RPPD). The central processing system includes a secure metering device (SMD) operatively coupled to a central computer and configured to store accounting information. The RPPD operatively couples to the SMD via a wireless communications link. The RPPD receives a user request for postage, transmits the user request to the SMD via the wireless communications link, receives a secure postage indicium from the SMD, and directs printing of an indicium. The secure postage indicium can be generated using digital signature, encryption, or encoding, or a combination thereof.

Brief Description of Drawings Paragraph - DRTX (5): [0032] FIG. 6 shows a flow diagram of an embodiment of a process for generating and remotely printing postage indicia in accordance with the invention; and

Brief Description of Drawings Paragraph - DRTX (6): [0033] FIG. 7 shows an illustration of a specific embodiment of an indicium generated and remotely printed in accordance with the invention.

Detail Description Paragraph - DETX (35): [0067] FIG. 6 shows a flow diagram of an embodiment of a process for generating and remotely printing postage indicia in accordance with the invention. The process begins at step 610, where the RPPD receives a user request for postage. In conjunction with the request, the RPPD may also receive other pertinent postal information from the user. The RPPD then processes the user request, also at step 610. In a specific embodiment, the RPPD processing of the user request includes generating a digital signature that allows the CSMD to authenticate the request. The processing can further include encrypting or encoding the request so as to deter the generation of fraudulent requests. The RPPD then sends the processed request along with other postal information to the CSMD, at step 612. The postal information can include, for example, the mail class/service, the destination ZIP-code, other required values such as insurance, and so on. Any failure in this communication from the RPPD prevents issuance of postage by the CSMD.

Detail Description Paragraph - DETX (44): [0076] FIG. 7 shows an illustration of a specific embodiment of an indicium 700 generated and remotely printed in accordance with the invention. In an embodiment, indicium 700 is printed on a preprinted postage label and includes a human-readable portion 710, a facing identification mark (FIM) marking 712, and a barcode 714. As shown in FIG. 7, human-readable portion 710 includes a device ID number, the postage amount, the date the indicium was printed, the origination address (e.g., the city, state, and zip code), and a rate category. The destination address (e.g., the destination zip code) can also be printed in the human-readable portion of indicium 700, although this is not shown in FIG. 7. The FIM marking and the (e.g., PDF 417) barcode typically conform to IBIP specifications and are used to assist the postal authority in the detection of fraud. In the specific embodiment shown in FIG. 7, indicium 700 further includes a micro printing portion

716 and a fluorescent identifier (e.g., a stripe) 718 that discourage counterfeits and assist in the their detection.

Claims Text - CLTX (2): 1. A postage metering system comprising: a central processing system that includes a central computer, and a secure metering device (SMD) operatively coupled to the central computer and configured to store accounting information; and a remote postage printing device (RPPD) operatively coupled to the SMD via a wireless communications link, the RPPD configured to receive a user request for postage, transmit the user request to the SMD via the wireless communications link, receive a secure postage indicium from the SMD, and direct printing of an indicium.

Claims Text - CLTX (19): 18. A postage metering system comprising: a central processing system that includes a central computer; at least one secure metering device (SMD) operatively coupled to the central computer, each SMD configured to store postal accounting information for a particular set of users; and a plurality of remote postage printing devices (RPPDs) operatively coupled to the at least one SMD via a wireless communications link, each RPPD configured to receive a user request for postage, transmit the user request to a particular SMD via the wireless communications link, receive a secure postage indicium from the particular SMD, and direct printing of the requested indicium.

US-PAT-NO: 6594374
DOCUMENT-IDENTIFIER: US 6594374 B1
TITLE: Postage printing system having graphical relationship between postal indicium label and address label segments
DATE-ISSUED: July 15, 2003
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Beckstrom; David W.	Fairfield	CT	N/A	N/A
Blackman; Fran E.	Weston	CT	N/A	N/A
Campo; John L.	Vienna	VA	N/A	N/A
Salomon; James A.	Cheshire	CT	N/A	N/A

US-CL-CURRENT: 382/101, 382/175

ABSTRACT: A method of producing a mailpiece including the following steps: (i) printing a postal indicium and a first inspection image on a first label segment; and (ii) printing a recipient address and a second inspection image on a second label segment; (iii) applying the first label segment and the second label segment to the mailpiece. The first inspection image and the second inspection image have a human visible relationship indicating that the first label segment and the second label segment correspond to each other.
24 Claims,   9 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

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Detailed Description Text - DETX (3): Generally, it is anticipated that the computer system 100 may be located in small business offices and/or in private residences and used for a variety of purposes, including obtaining postage. Thus, the computer systems 100 are representative of users wanting to obtain postage for their mailpieces (envelopes, post cards, packages and the like). The data center 200 is maintained and operated by an authorized postage meter manufacturer, some other authorized agency or a postal authority. The computer system 100 may be connected directly to the printer 112 or have access to a printer 112 over any suitable communication network (not shown). Those skilled in the art will recognize that many computer systems 100 may be connected with the data center.

Detailed Description Text - DETX (7): Using the recipient address 26 and the desired postage amount, the data center 200 generates an encrypted message (not shown) as is well known in the art for printing on the envelope 20. The postal authority subsequently uses the encrypted message for verification purposes. The postage printing system 10 then prints the postage indicium 22, including a facer identification mark (FIM) (not required by all postal authorities) 29, on the postal indicium label segment 122a and the recipient address 26 on the address label segment 122b. The postage printing system 10 also prints a first inspection image 150a on the postal indicium label segment 122a and a second inspection image 150b on the address label segment 122b. Preferably, the

inspection images 150a and 150b change from label to label so that consecutive labels 122 on the label stock 120 do not have the same inspection images 150a and 150b. In the most preferred embodiment as shown, the inspection images 150a and 150b are the same image and consist of an alphanumeric string that is easily human readable. Of course, the inspection images 150a and 150b as shown are "A1" and those skilled in the art will recognize that they should change between successive mailpieces 20 and not repeat too frequently.

US-PAT-NO: 6619544
DOCUMENT-IDENTIFIER: US 6619544 B2
TITLE: System and method for instant online postage metering
DATE-ISSUED: September 16, 2003
INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bator; Felix	Easton	CT	N/A	N/A
Chamberlin; David B.	Monroe	CT	N/A	N/A
Euchner; James A.	Waccabuc	NY	N/A	N/A
Foth; Thomas J.	Trumbull	CT	N/A	N/A
Obrea; Andrei	Seymour	CT	N/A	N/A
Rich; David L.	Shelton	CT	N/A	N/A
Riley; David W	Easton	CT	N/A	N/A

US-CL-CURRENT: 235/381, 235/495 , 705/403 , 705/59 , 705/60

ABSTRACT: A system and method for instantly printing PC postage before establishing a postage meter account. The method includes the steps of a meter vendor obtaining a first meter license from the Post for a first meter; loaning the use of a first meter licensed in the customer's zip code to a customer; requesting a second meter license for the customer; initializing the first meter for use by the customer; and transferring the first meter to the Customer's meter license when the second meter license is received. Alternatively, when the second meter license is received a second meter is assigned to the customer and the first meter is reassigned to the meter vendor.
5 Claims,   6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 6

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Brief Summary Text - BSTX (9): The IBIP Specification defines this alternative version, which is referred to herein as a "virtual meter", which is a network metering system that has many client PCs without any PSDs coupled thereto. The client PCs run application software for requesting and formatting postage indicia, but all PSD functions are performed on server(s) located at a Data Center. The PSD functions at the Data Center may be performed in a secure device attached to a computer at the Data Center, or may be performed in the Data Center computer itself. The client PCs must connect with the Data Center to process transactions such as postage dispensing, meter registration, or meter refills. Transactions are requested by the client PC and sent to the Data Center for remote processing. The transactions are processed at the Data Center and the results are returned to the client PC. Accounting for funds and transaction processing are centralized at the Data Center. See, for example, U.S. Pat. Nos. 5,454,038 and 4,873,645, which are assigned to the assignee of the present invention. An example of a virtual meter is ClickStamp.TM. Online Internet postage metering system, offered and maintained by Pitney Bowes Inc. at its web site www.pitneyworks.com. See also, International Patent Applications WO/9857302, WO98/57303, WO98/57304, WO98/57305, WO98/57306 and WO/9857460, each

having an international filing date of Jun. 12, 1998, for further descriptions of virtual metering.

Detailed Description Text - DETX (3): In describing the present invention, reference is made to the drawings, wherein there is seen in FIG. 1, a virtual postage metering system, generally designated 10. The virtual postage metering system 10 includes a plurality (only one is shown) of personal computer (PC) systems, generally designated 20, each having access to a printer 22 for printing evidence of postage on an envelope. PC 20 is connected with a transaction processing Data Center 30 that performs postal accounting and evidencing of postage. The virtual postage metering system 10 allows each customer to use a conventional PC to remotely obtain evidence of postage payment on an as needed basis. Unlike conventional postage metering systems, virtual postage metering system 10 does not include any meter hardware located at the customer's site. Nor are any postal funds stored at the customer's site. All metering and accounting of funds occur at Data Center 30 using functional software and database records. International Previously noted Patent Application WO/9857302 discloses a virtual postage metering system in which the database records in Data Center 30 comprised a plurality of meter accounts each of which represent a registered customer's licensed postage meter.

Detailed Description Text - DETX (4): In virtual postage metering system 10, a meter vendor, such as Pitney Bowes Inc., provides the customer with client software that runs on PC 20, e.g., the client software may be downloaded from the vendor's Internet server. Alternatively, the client software may be Internet browser-based pages that provide customer interactions with the Data Center 30. The meter vendor also manages Data Center 30. The client software initiates communications with Data Center 30 which performs metering transactions to evidence postage for a single mailpiece or batches of mailpieces. The client software establishes a connection to Data Center 30, and requests postage by providing postal information relating to the requested transactions, such as postage amount, addressee information and the origin of deposit for each mailpiece. Data Center 30 receives the postal information, determines the origin ZIP for the mailpiece(s), performs accounting functions and generates an encrypted evidence of postage payment, such as a token or digital signature, and sends indicium information including the token, to PC 20. PC 20 receives the indicium information, creates an indicium bitmap, which can be displayed on a PC monitor (not shown) and printed on the mailpiece by printer 22. Alternatively, Data Center 30 creates the indicium bitmap and sends to indicium bitmap to PC 20. PC 20 then disconnects from Data Center 30 or requests another transaction. The connection between PC 20 and Data Center 30 may be through a Network Service Provider, such as on the Internet, or by direct dial using the PC's modem.

Detailed Description Text - DETX (5): Virtual postage metering system 10 provides advantages and features found in virtual metering systems such as the previously noted ClickStamp.TM. Online Internet postage metering system. Virtual postage metering system 10 eliminates the need to maintain and account for traditional metering devices at each customer's site and provides flexibility for handling requests from multiple

origins of deposit by each customer. Virtual postage metering system 10 also provides value added services that are not available with conventional meter devices, such as, real-time address hygiene, direct marketing services and trickle charge postage payment. Virtual postage metering system 10 can provide customer authentication by Data Center 30 to identify customers who have previously established user accounts. When a customer has been authenticated for each request, for example, by a username, password or other conventional methods, Data Center 30 services the request, and returns indicium information to the PC 20 where the indicium is created and printed on the mailpiece.

DERWENT-ACC-NO: 1999-060604
DERWENT-WEEK: 200434
COPYRIGHT 1999 DERWENT INFORMATION LTD
TITLE: Method for evidencing postage payment using virtual <u>postage meter with</u> <u>multiple origins of deposit - accounts at remote</u> data metering centre for postage amount of local postage printing system and to determined postal origin, creates <u>postage</u> <u>evidencing data based on to request,</u> sends to printing system for printing on mailpiece
INVENTOR: GRAVELL, L V; PINTSOV, L A ; RILEY, D W ; ROMANSKY, B ; RYAN, F W
PRIORITY-DATA: 1997US-049518P (June 13, 1997) , 1999US-0242206 (December 2, 1999) , 2003US-0360383 (February 6, 2003)
PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CA 2263436 C	May 18, 2004	E	000	G07B 017/04
WO 9857303 A1	December 17, 1998	E	028	G07B 017/00
AU 9879619 A	December 30, 1998	N/A	000	N/A
EP 925558 A1	June 30, 1999	E	000	N/A
US 6546377 B1	April 8, 2003	N/A	000	G07B 017/00
US 20030120606 A1	June 26, 2003	N/A	000	H04K 001/00

INT-CL (IPC): G06F017/60, G07B017/00 , G07B017/04 , H04K001/00

ABSTRACTED-PUB-NO: WO 9857303A

BASIC-ABSTRACT: The method (fig 3) requests from a local postage printing system to a <u>remote data metering centre for the generation of postage</u> evidencing information, with the request including a postage amount to be printed on a mailpiece. It is determined at the remote centre a postal origin corresponding to the request. It accounts at the centre for the postage amount corresponding to the local postage printing system and to the determined postal origin. Postage evidencing information is generated in response to the request. This information is sent to the local postage printing system, and the information is printed on the mailpiece.

USE - For evidencing postage payment in virtual meter configuration.

File   2:INSPEC 1969-2004/Jun W2 (c) 2004 Institution of Electrical Engineers
File   9:Business & Industry(R) Jul/1994-2004/Jun 18 (c) 2004 The Gale Group
File   15:ABI/Inform(R) 1971-2004/Jun 19 (c) 2004 ProQuest Info&Learning
File   16:Gale Group PROMT(R) 1990-2004/Jun 21 (c) 2004 The Gale Group
File   20:Dialog Global Reporter 1997-2004/Jun 20 (c) 2004 The Dialog Corp.
File   35:Dissertation Abs Online 1861-2004/May (c) 2004 ProQuest Info&Learning
File   65:Inside Conferences 1993-2004/Jun W2 (c) 2004 BLDSC all rts. reserv.
File   99:Wilson Appl. Sci & Tech Abs 1983-2004/May (c) 2004 The HW Wilson Co.
File   148:Gale Group Trade & Industry DB 1976-2004/Jun 21 (c)2004 The Gale Group
File   160:Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group
File   233:Internet & Personal Comp. Abs. 1981-2003/Sep (c) 2003 EBSCO Pub.
File   256:SoftBase:Reviews,Companies&Prods. 82-2004/May (c)2004 Info.Sources Inc
File   275:Gale Group Computer DB(TM) 1983-2004/Jun 21 (c) 2004 The Gale Group
File   347:JAPIO Nov 1976-2004/Feb(Updated 040607) (c) 2004 JPO & JAPIO
File   348:EUROPEAN PATENTS 1978-2004/Jun W02 (c) 2004 European Patent Office
File   349:PCT FULLTEXT 1979-2002/UB=20040617,UT=20040610 (c) 2004 WIPO/Univentio
File   474:New York Times Abs 1969-2004/Jun 18 (c) 2004 The New York Times
File   475:Wall Street Journal Abs 1973-2004/Jun 18 (c) 2004 The New York Times
File   476:Financial Times Fulltext 1982-2004/Jun 19 (c) 2004 Financial Times Ltd
File   583:Gale Group Globalbase(TM) 1986-2002/Dec 13 (c) 2002 The Gale Group
File   610:Business Wire 1999-2004/Jun 19 (c) 2004 Business Wire.
File   613:PR Newswire 1999-2004/Jun 19 (c) 2004 PR Newswire Association Inc
File   621:Gale Group New Prod.Annou.(R) 1985-2004/Jun 21 (c) 2004 The Gale Group
File   624:McGraw-Hill Publications 1985-2004/Jun 18 (c) 2004 McGraw-Hill Co. Inc
File   634:San Jose Mercury Jun 1985-2004/Jun 19 (c) 2004 San Jose Mercury News
File   636:Gale Group Newsletter DB(TM) 1987-2004/Jun 18 (c) 2004 The Gale Group
File   810:Business Wire 1986-1999/Feb 28 (c) 1999 Business Wire
File   813:PR Newswire 1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc

Set	Items	Description
S1	998419	(POSTAGE OR INDICIA OR INDICIUM OR EVIDENC??? OR MARK??? OR FRANK??? OR IMAGE OR STAMP???? OR IMPRESSION OR INPRINT???? OR IMPRINT????) (5N) (REQUEST??? OR DEMAND???? OR OBTAIN???)
S2	3054	POSTAGE (N) (METER OR METERING OR SERVER)
S3	90831	ACCOUNT???? (5N) (VAULT OR MODULE OR CHIP OR CARD OR PSD OR PED OR PSM OR MEMORY OR NVM)
S4	4725	(S2 OR S3) (5N) (REMOTE??? OR CENTER OR CENTRAL??? OR NET OR NETWORK OR LAN OR WAN OR COMMUNICATE OR COMMUNICATION OR INTERNET OR INTRANET)
S5	59	S1 (S) S4
S6	1684222	(POSTAGE OR INDICIA OR INDICIUM OR EVIDENC??? OR MARK??? OR FRANK??? OR IMAGE OR STAMP???? OR IMPRESSION OR INPRINT???? - OR IMPRINT????) (5N) (GENERAT???? OR BUIL???? OR CONSTRUCT???? OR COMBIN?????? OR CREAT????)
S7	14553	S6 (5N) (REMOTE??? OR CENTER OR CENTRAL???)
S8	13	S5 AND S7
S9	0	METER??/TI (S) CONSUMER??/TI (S) DIAL/TI (S) POSTAGE/TI
S10	59	S5 OR S8
S11	57	RD S10 (unique items) [Scanned ti,pd,kwic all]
S12	0	METER??/TI (S) CONSUMER??/TI (S) POSTAGE/TI